

Claims

1. Method for handling of an endless belt (12) for an electrophotographic printer or copier,  
5  
in which the endless belt (12) is borne with the aid of a first, a second and a third cylindrical body (14, 16, 18),  
  
10 whereby the first cylindrical body (14) is inserted through the loop (42) of the endless belt (12),  
  
the second cylindrical body (16) is arranged outside of the loop (42) of the endless belt (12) and parallel to the first cylindrical body (14), and  
  
15 the endless belt (12) is wound around the first and the second cylindrical bodies (14, 16),  
  
and in which the third cylindrical body (18) is inserted through the loop (42) at the free end of the endless belt (12) before or during the wrapping of  
20 the first and the second cylindrical body (14, 16) with the endless belt (12).
2. Method according to claim 1, in which the endless belt (12) is wound around the first and the second cylindrical bodies (14, 16) so often that the third cylindrical body (18) rests on the wound unit formed from the first cylindrical body (14, the second cylindrical body (16) and the endless belt (12) wound around them.  
25
3. Method according to claim 1 or 2, in which the cylindrical bodies (14, 16, 18) with the wound endless belt (12) are housed in a container (10) for  
30 transport and/or for storage,

whereby at least one of the cylindrical bodies (14, 16, 18) protrudes at its ends over the width of the endless belt (12), and the ends of this at least one cylindrical body that are uncovered by the endless belt (12) are supported in supports (20) provided in the container (10).

5

4. Method according to claim 3, in which at least one of the supports 20 [sic] has a round support surface (28).

10

5. Method according to claim 3 or 4, in which at least one of the supports (20) is formed by a frame in which are arranged the ends of the cylindrical bodies (14, 16, 18) uncovered by the endless belt (12).

15

6. Method according to claim 5, in which the frame (20) is dimensioned so narrow that the wound unit and the third cylindrical body (18) are held together.

20

7. Method according to claim 4 and any of the claims 5 and 6, in which the frame (20) is formed by a recess (22) in a carrier element (24) that has an essentially circular segment that forms the round support surface (28).

25

8. Method according to any of the claims 3 through 7, in which the container (10) is arranged for extraction of the endless belt (12) such that the cylindrical bodies (14, 16, 18) lie horizontally, and the third cylindrical body (18) is raised from the container (10) into a horizontal position such that the endless belt (12) wound around the first and the second cylindrical bodies (14, 16) unwinds.

9. Method according to claims 4 and 8, in which the wound unit unrolls on the round support surface (28) upon unwinding of the endless belt (12).

30

10. Method according to any of the claims 5 through 7 and any of the claims 8 and 9, in which the third cylindrical body (18) is extracted from the frame (20) through an opening (30) in the frame (20).
- 5      11. Method according to claim 10, in which means (36) are provided with which the opening (30) can be sealed such that none of the cylindrical bodies (14, 16, 18) can leave the frame (20) via the opening (30).
- 10     12. Method according to claim 11, in which the means for sealing the opening (30) are formed by a web (36) that is shaped on a cover (32) of the container (10) and that, given a closed cover (32), protrudes into the opening (30).
- 15     13. Method according to claim 12, in which, upon closing of the cover (32), the web (36) is inserted between two of the cylindrical bodies (14, 16, 18) in the region of the ends uncovered by the endless belt (12).
- 20     14. Method according to any of the claims 3 through 13, in which the cylindrical bodies (14, 16, 18) are formed as tubes that are mounted on mounts (46, 48, 50) of the printer or copier after an extraction of the endless belt (12) from the container (10), and in which the endless belt (12) is slid across the tubes (14, 16, 18) into the printer or copier.
- 25     15. Method according to claim 14, in which the mounts (46, 48, 50) are arranged on the printer or copier such that, upon mounting of the tubes (14, 16, 18), the endless belt (12) looped around the tubes (14, 16, 18) assumes the shape that it has in the printer or copier.
- 30     16. Method according to claim 14 or 15, in which the third tube (18) is mounted on the uppermost mount (46) with the endless belt (12) suspended from it, which endless belt (12) is weighted down by the first tube (14)

lying in its loop (42); the first tube is mounted on the lowermost mount (46); and the second tube (16) is directed through the loop (42) of the endless belt (12) and is mounted on the middle mount (48).

5 17. Unit comprising an endless belt (12) and a holder,

in which the holder comprises a first, a second and a third cylindrical body (14, 16, 18) for bearing the endless belt (12),

10 whereby the first cylindrical body (14) is inserted through the loop (42) of the endless belt (12),

the second cylindrical body (16) is arranged outside of the loop (42) of the endless belt (12) and parallel to the first cylindrical body (14),

15 and the endless belt (12) is wound around the first and the second cylindrical bodies (14, 16),

20 and whereby the third cylindrical body (18) is inserted through the loop (42) at the free end of the endless belt (12) wound around the first and the second cylindrical body (14, 16).

18. Unit according to claim 17, in which the endless belt (12) is wound around the first and the second cylindrical bodies (14, 16) so often that the third cylindrical body (18) rests on the wound unit formed from the first cylindrical body (14, the second cylindrical body (16) and the endless belt (12) wound around them.

25 19. Unit according to claim 17 or 18 that comprises a container in which the cylindrical bodies (14, 16, 18) with the wound endless belt (12) are housed, in which at least one of the cylindrical bodies (14, 16, 18) protrudes at its

ends over the width of the endless belt (12), and the ends of this at least one cylindrical body (14, 16, 18) that are uncovered by the endless belt (12) are supported in supports (20) provided in the container (10).

- 5      20. Unit according to claim 19, in which at least one of the supports (20) has a round support surface (28).
- 10     21. Unit according to claim 19 or 21, in which at least one of the supports (20) is formed by a frame in which are arranged the ends of the cylindrical bodies (14, 16, 18) uncovered by the endless belt (12).
- 15     22. Unit according to claim 21, in which the frame (20) is dimensioned such that it holds the wound unit and the third cylindrical body (18) together.
- 20     23. Unit according to claim 20 and any of the claims 21 and 22, in which the frame (20) is formed by a recess (22) in a carrier element (24) that has an essentially circular segment that forms the round support surface (28).
24.    Unit according to any of the claims 21 through 23, in which the frame (20) has an opening (30) through which the third cylindrical body (18) can be extracted from the frame (20).
25.    25. Unit according to claims 23 and 24, in which the opening (30) is formed in that the recess (22) in the carrier element (24) extends until the edge of the carrier element (24) at at least one point.
26.    26. Unit according to claim 24 or 25, in which means (36) are provided with which the opening (30) can be sealed such that none of the cylindrical bodies (14, 16, 18) can leave the frame (20) via the opening (30).

27. Unit according to claim 26, in which the means for sealing the opening (30) are formed by a web (36) that is shaped on a cover (32) of the container (10) and that, given a closed cover (32), protrudes into the opening (30).
- 5      28. Unit according to claim 27 in which, given a closed cover (32), the web (36) protrudes between two of the cylindrical bodies (14, 16, 18) in the region of the ends uncovered by the endless belt (12).
- 10     29. Unit according to any of the claims 17 through 28, in which the third cylindrical body (18) is optically identified.
30. Unit according to any of the claims 17 through 29, in which the cylindrical bodies are formed by cardboard tubes (14, 16, 18).
- 15    31. Unit according to any of the claims 17 through 30, in which the endless belt (12) is formed by a photoconductor belt for an electrophotographic printer or copier.
- 20    32. System for electrophotographic printing or copying, comprising an electrophotographic printer or copier, an endless belt (12) that can be inserted into the printer or copier and a holder for the endless belt, in which the endless belt (12) and the holder form a unit according to any of the claims 17 through 31,
- 25                in which the cylindrical bodies (14, 16, 18) of the holder are formed by tubes, and
- 30                in which the printer or copier has mounts (46, 48, 50) on which the tubes (14, 16, 18) can be mounted, whereby the mounts (46, 48, 50) are arranged such that, upon mounting of the tubes (14, 16, 18) on the mounts (46, 48,

50), the endless belt (12) looped around the tubes (14, 16, 18) assumes the shape that it has in the printer or copier.

33. System according to claim 32, in which the mounts (46, 48, 50) are formed by mounting spikes.
- 5                   34. System according to claim 32 or 33, in which the association of a tube (14, 16, 18) with a mount (46, 48, 50) is optically identified.